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10/722,564	11/28/2003	Dong-man Kim	1793.1043	6267

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EXAMINER	
MILLER, BRIAN E	
ART UNIT	**PAPER NUMBER**
2627	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/722,564	KIM, DONG-MAN	
	Examiner	Art Unit	
	Brian E. Miller	2627	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *7/9/07 & 5/24/07*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5,6 and 10-17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5,6 and 10-17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Claims 1-3, 5-6, 10-17 are now pending.

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "interference portion urging the disc cartridge to a side of the opening other than a top side or a bottom side," as recited in claims 1, 3 & 16, must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1-3, 5-6, 10-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Iwaki (JP 407037313). (As per claims 1, 3 & 16) Iwaki discloses an apparatus 1 for loading a disc cartridge in a drive; as shown in FIGs. 1 & 3, where the disc cartridge 3 (FIG. 2) includes a shutter 3f and a reference surface (main surface of housing 3) (first surface) having a reference area and a low area 3a formed in the reference surface to have a low surface 3a (second surface) below the reference surface to form a step therebetween (refer to FIG. 3), the apparatus comprising: a tray 2 to accommodate the disc cartridge 3 and comprising an interference portion 8 which protrudes from an upper surface of the tray to have a height corresponding to a height of the step (refer to para [0011]); and a blocking element 10 disposed adjacent the tray at an opening 9 into the drive 1, wherein when the disc cartridge is received on the tray in a normal orientation, the interference portion is received within another portion of the low area without interfering with a movement of the shutter in the low area (see para [0013]), and when the disc cartridge is accommodated on the tray in an abnormal orientation, the interference portion contacts and interferes with the reference area such that the cartridge is blocked by the blocking element as the tray moves toward the opening of the drive (see para [0014] & [0015] and FIG. 3); (as per claim 2) wherein the interference portion 8 has a shape of a protrusion; (further as per claim 3) wherein the disc cartridge includes the first surface adjacent (main surface of housing 3)

disposed at a first level and the second surface 3a disposed at a second level other than the first level and forming a step therebetween, when the disc cartridge is disposed in the first orientation at the accommodation position with the interfering element being received at the second surface, the tray is moveable past the blocking element 10 into the opening(see para [0013]), and when the disc cartridge is disposed in the second orientation at the accommodation position with the interfering element being received at the first surface, the blocking element 10 prevents the tray 2 from entering the opening 9 (see para [0014] & [0015] and FIG. 3); (as per claim 5) wherein the interfering element 8 allows the disc cartridge 3 to remain substantially parallel with a surface 6 of the tray when in the first orientation, i.e., correct insertion, and elevates a portion of the disc cartridge away from the surface of the tray so as to contact the blocking element 10 to prevent entry into the opening 9 when in the second orientation, i.e., incorrect insertion-see FIG. 3); (as per claim 10) wherein the second surface 3a comprises a recessed surface having a depth below the first surface; and the interfering element 8 has a height above a surface 6 of the tray that is at or less than the depth of the recessed surface of the disc cartridge such that, when received in the first orientation, the disc cartridge is substantially parallel with the surface of the tray; (as per claim 11) wherein the blocking element 10 is disposed over the surface of the tray by a first distance (see FIG. 1), and when received in the second orientation, i.e., incorrect insertion, the interfering element 8 contacts the first surface, i.e. main surface of housing 3, of the disc cartridge (see FIG. 3), and the height of the interfering element is sufficient to elevate a portion of the disc cartridge 3 away from the surface 6 of the tray by at least the first distance such that, during insertion into the opening, the elevated portion of the disc cartridge contacts the blocking element 10 to prevent entry into the opening (see para [0014] & [0015] and FIG. 3); (as per

claim 12) further comprising a rail (not shown, but at least inherent within device 1 for proper operation of the tray 2 into/out of the opening 9) along which the tray is slidably received in the housing; (as per claim 15) wherein when accommodated at the first orientation, i.e., correct orientation, a centerline of the disc cartridge is disposed at a first angle that is substantially parallel with a direction in which the tray is loaded into the case through the opening, and when accommodated at the second orientation, i.e., incorrect orientation-see FIG. 3) the centerline of the disc cartridge is disposed to be sufficiently non-parallel with the direction so as misalign the disc cartridge to extend sufficiently away from the tray to contact the blocking element so as to prevent entry through the opening 9.

With respect to each of the independent claims, i.e., 1, 3 & 16, Iwaki discloses the interfering element 8 to urge the cartridge upward into contact with blocking element 10 (see FIG. 3) and thus is expressly silent as to the interfering element 8 urging the disc cartridge to a side of the opening other than a top side or a bottom. While the location of the interfering element may be changed, the function, i.e., that it does not permit a cartridge wrongly inserted into a disk device, remains the same. It is maintained by the Examiner, that modifying the location of the interfering element 8 to any area of the tray, would have been obvious to a skilled artisan, as long as it provided the same function as described above.

The motivation would have been: lacking any unobvious or unexpected results, moving the interfering element(s) to other areas of the tray would have been provided through routine engineering optimization and design choice. Furthermore, it has been held that rearranging elements of an invention while maintaining their function, involves only routine skill in the art; See *In re Japikse*, 86 USPQ 70 (CCPA 1950).

With respect to claim 6, Iwaki has different locations for the step region, e.g., second surface, with respect to the first surface, thus not meeting the claim language.

It would have been considered obvious to one having ordinary skill in the art at the time the invention was made to have modified the orientation(s) of the two surfaces of the cartridge of Iwaki. The motivation would have been: lacking criticality and any unobvious or unexpected results, modifying the locations/orientations of the first surface and/or shutter would have been provided through routine engineering optimization and experimentation. Changing these locations would not change the general concept of the invention, which is primarily taught by Iwaki. See In re Japikse, 86 USPQ 70 (CCPA 1950) also for these matters.

With respect to claim 13, although not expressly shown, Official Notice is taken that the use of an optical pickup with a mini disc (see para [0002]) is notoriously old and well known, therefore, if not inherent, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have provided an optical pickup within the apparatus 1 of Iwaki. The motivation would have been: using an optical pickup with a mini disc was conventionally known.

With respect to claim 14 and the tray being capable of receiving a disc not having a cartridge as well, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the recess of the tray 2 of Iwaki to have accepted such a configuration. The motivation would have been: modifying the tray to have accepted both types of discs, i.e., disc in a cartridge and a "naked" disc would have increased the functionality of the apparatus of Iwaki, and improved its marketability, which would have been readily apparent to a skilled artisan in this field. It is noted that this type of combination disc trays are conventionally

used in this field, as well as double sided discs (as per claim 17).

Response to Arguments

4. Applicant's arguments filed 5/24/07 have been fully considered but they are not persuasive.

A...Applicant now asserts that Iwaki does not disclose that "the interference portion urging the disc cartridge to a side of the opening other than a top side or a bottom side."

The Examiner notes that the instant drawings do not show this newly recited feature either.

It is the Examiner's position that the inventive concept of applicant as claimed, is considered to be encompassed by Iwaki, aside from minor cartridge and tray modifications that the Examiner considers would have been obvious to a skilled artisan. The newly added limitation remains, in the Examiner's eyes, to be just a difference in location of the interfering element, and such, does not constitute a patentably distinguishing feature over Iwaki.

The newly added limitation would not have changed the basis operation of moving the cartridge and hitting a blocking element provided on the apparatus when the cartridge is misinserted, and allow for regular insertion when the blocking element does not encounter the cartridge, which operation, is specifically disclosed by Iwaki.

The Examiner maintains that the teachings of Iwaki discloses and/or suggests to a skilled artisan all of the elements of applicant's claimed invention.

B...Applicant's remarks to the rejections of dependent claims 2, 5-6, 10-15, 17, amount to a general allegation that the claims define a patentable invention without specifically pointing out

how the language of the claims patentably distinguishes them from the references, thus failing to comply with 37 CFR 1.111(b & c).

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian E. Miller whose telephone number is (571) 272-7578. The examiner can normally be reached on M-TH 6:30am-4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hoa T. Nguyen can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov.

Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Brian E. Miller
Primary Examiner
Art Unit 2627

BEM
August 19, 2007